

In the claims:

For the Examiner's convenience, all pending claims are presented below with changes shown in accordance with the mandatory amendment format.

1. (Currently Amended) An apparatus comprising:
 - a parser to receive a packet and to generate a packet search request;
 - a plurality of search resources, each search resource to determine a search response based on the packet search request;
 - a switch to receive the packet search request from the parser and to multicast the packet search request to the plurality of search resources; and
 - a session memory storage device coupled to the switch to enable the switch to be session aware, wherein session aware allows allow a session to be maintained across multiple packets.
2. (Original) The apparatus of claim 1, wherein the switch is further configured to receive a search response from each of the plurality of search resources, to select one search response from the received search responses, and to transmit the selected response to the parser.
3. (Original) The apparatus of claim 2, wherein the parser is further configured to generate a modification request for the packet based on search response.
4. (Original) The apparatus of claim 3, further comprising a plurality of packet modifiers, each packet modifier configured to modify the packet using the modification request.
5. (Original) The apparatus of claim 4, wherein the switch is configured to transmit the modification request from the parser to a packet modifier having a shortest queue.

6. (Original) The apparatus of claim 5, wherein the switch is further configured to transmit the modified packet from the packet modifier to the parser.

7. (Currently Amended) An apparatus comprising:

 a parser to receive a packet and to generate a packet request;

 a plurality of packet resources, each packet resource to generate a packet response based on the packet requests;

 a switch to receive the packet request from the parser and to transmit the packet request to at least one of the plurality of packet resources; and

 a session memory storage device coupled to the switch to enable the switch to be session aware, wherein session aware allows allow a session to be maintained across multiple packets.

8. (Original) The apparatus of claim 7, wherein the packet request is selected from the group consisting of: a packet search request, a packet modification request, and a session identification request.

9. (Original) The apparatus of claim 7, wherein the switch is further configured to receive a packet response from at least one of the plurality of packet resources, and to transmit the packet response to the parser.

10 (Original) The apparatus of claim 9, wherein the packet response is selected from the group consisting of: a search response, a packet modification, and a session identifier.

11. (Original) The apparatus of claim 9, wherein the packet resource is selected from the group consisting of: a packet modifier, a packet search device, and a session device.

12. (Currently Amended) An apparatus comprising:
first means for receiving a packet and for generating a packet for generating a packet request;

second means for generating a packet response based on the packet request;
third means for receiving the packet request from said first means and for transmitting the packet request to said second means; and
fourth means for enabling a switch to be session aware, wherein session aware allows allow a session to be maintained across multiple packets.

13. (Original) The apparatus of claim 12, wherein the packet request is selected from the group consisting of: a packet search request, a packet modification request, and a session identification request.

14. (Original) The apparatus of claim 12, wherein said third means further comprises means for receiving a packet response from said second means, and for transmitting the packet response to said first means.

15. (Original) The apparatus of claim 12, wherein the packet response is selected from the group consisting of: a search response, a packet modification, and a session identifier.

16. (Original) The apparatus of claim 12, wherein said second means is selected from the group consisting of: a packet modifier, a packet search device, and a session device.

17. (Currently Amended) A method comprising:
receiving a packet at a parser;
generating a packet request at the parser;

using a switch to transmit the packet request from the parser to a packet resource, wherein the switch is session aware, wherein session aware allows a session to be maintained across multiple packets; and

using the packet resource to generate a packet response based on the packet request.

18. (Cancelled)

19. (Original) The method of claim 17, wherein the packet request is selected from the group consisting of: a packet search request, a packet modification request, and a session identification request.

20. (Original) The method of claim 17 further comprising using the switch to transmit the packet response from the packet resource to the parser.

21. (Original) The method of claim 17, wherein the packet response is selected from the group consisting of: a search response, a packet modification, and a session identifier.

22. (Original) The method of claim 17, wherein the packet resource is selected from the group consisting of: a packet modifier, a packet search device, and a session device.

23. (Cancelled)